Mathematics and Computing

$$\left(x_i, t_{n+\frac{1}{2}}\right) = \alpha \frac{\partial^2}{\partial x^2} u\left(x_i, t_{n+\frac{1}{2}}\right) + f\left(x_i, t_{n+\frac{1}{2}}\right),$$

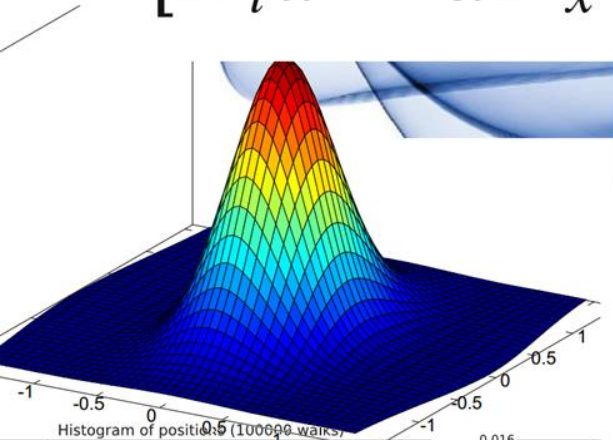
```
0:-1]:
inear system by Jacobi/SOR iteration
u_n  # Start value
= False
```

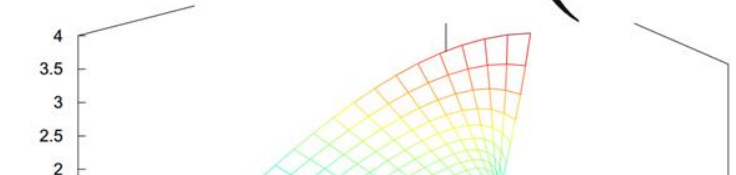
MY PORTFOLIO

Numerical Methods, FEA, CFD

$$[D_t u = \alpha D_x D_x$$

$$\Delta x^2 \left(u_{i-1}^{n+\frac{1}{2}} - 2u_i^{n+ \right.$$






```
(t[n+1])  # Boundary
:
j] = U_0x(t[n+1])  #
j] = U_Lx(t[n+1])  #
```

ABOUT ME

-Numerical Methods

- FEA, CFD
- Hand Calculations
- MATLAB , Python, R Programming

Always

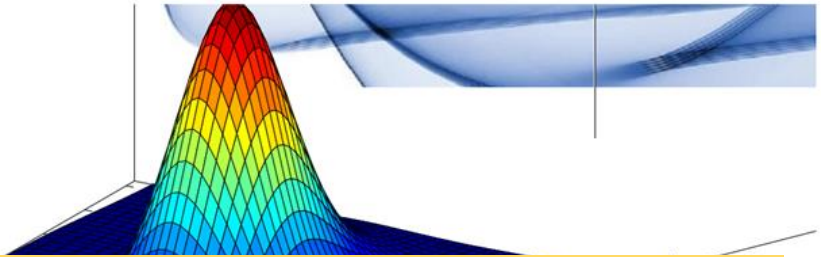
In time
Best quality

$$t_{n+\frac{1}{2}}\Big) = \alpha \frac{\partial^2}{\partial x^2} u\left(x_i, t_{n+\frac{1}{2}}\right) + f\left(x_i, t_{n+\frac{1}{2}}\right),$$

```
for n in It[0:-1]:
    # Solve linear system by
    ] = u_n  # Start va
    ged = False
```

ABOUT ME

$$[D_t u = \alpha D_x D_x \overline{u}^t + \overline{f}^t]_i^{n+\frac{1}{2}}$$

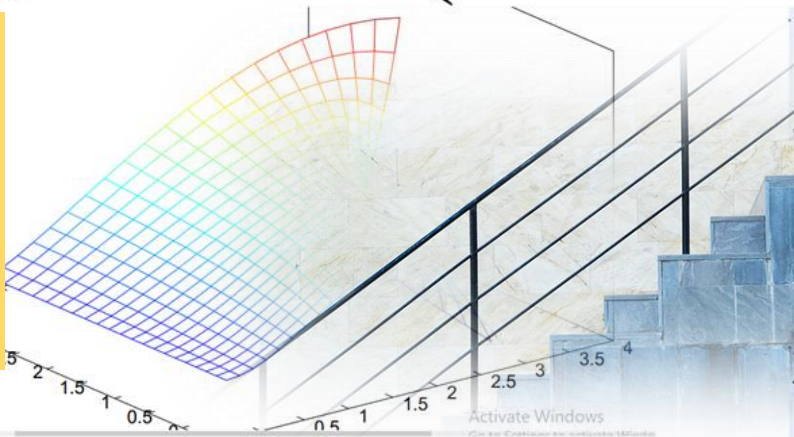


$$\frac{1}{\Delta x^2}\left(u_{i-1}^{n+\frac{1}{2}} - 2u_i^{n}\right.$$

My design will always be creative and attractive.

Step by Step solution and Full explanations

Solve hard problems

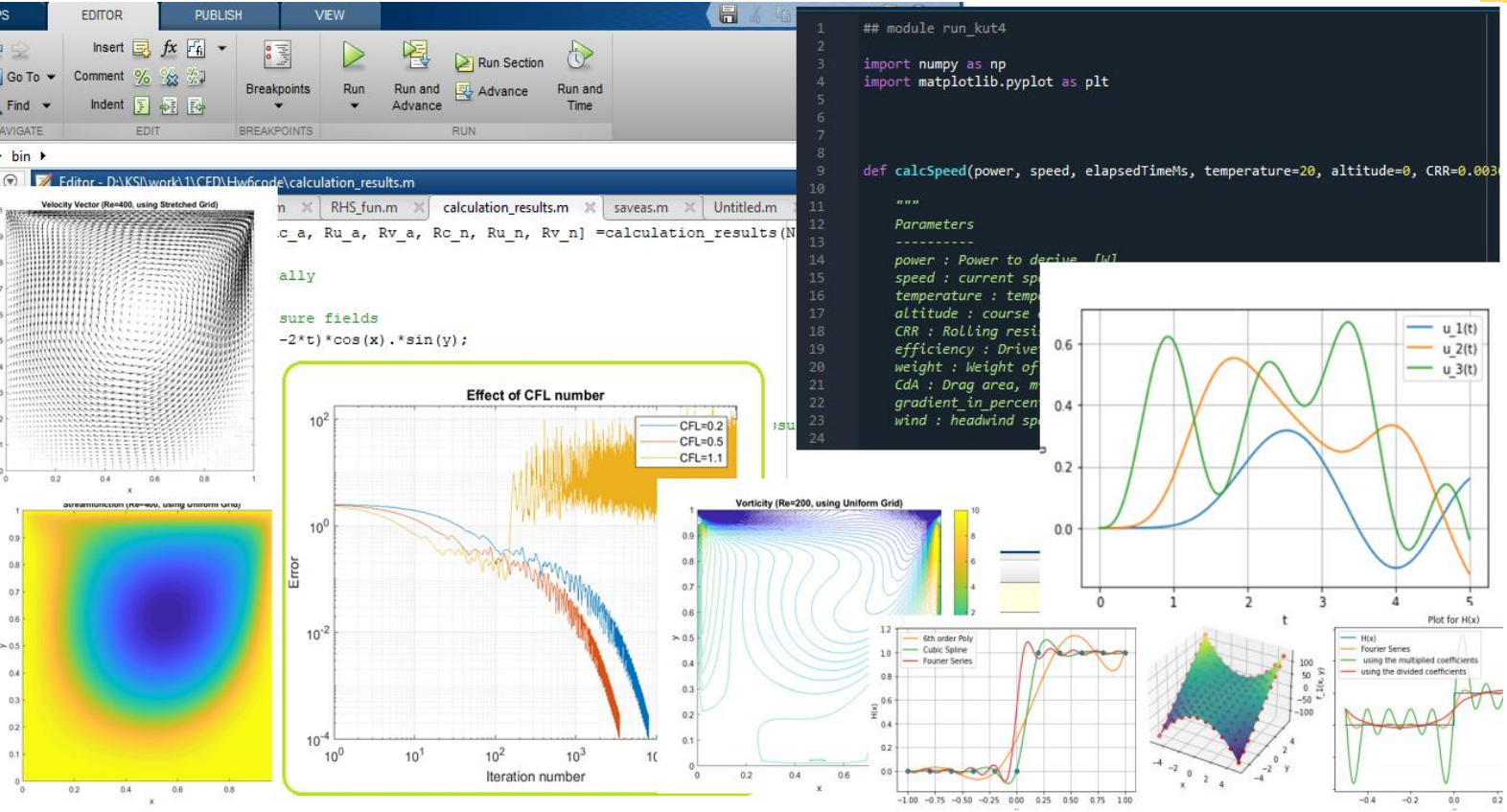



```
(t[n+1])  # Bounda
:
j] = U_0x(t[n+1])
] = U_Lx(t[n+1])

    2*theta*
[i,j] + u__[i-1
[i,j+1] + u__[i,j
+ (1-theta)*(
```

Apply numerical algorithms to **MATLAB**, **PYTHON**, etc

ABOUT ME




```python
## module run_kut4

import numpy as np
import matplotlib.pyplot as plt



def calcSpeed(power, speed, elapsedTimeMs, temperature=20, altitude=0, CRR=0.003

    """
    Parameters
    ----------
    power : Power to derive  [W]
    speed : current sp
    temperature : temp
    altitude : course
    CRR : Rolling resi
    efficiency : Drive
    weight : Weight of
    CdA : Drag area, m
    gradient_in_percen
    wind : headwind sp
```

Application to Statistics, Physics, Chemistry, Heat & Mass transfer, Fluid dynamics

THANK YOU!